-as General shaper curve and matrix profiles
(which are superior to gamma curve profiles)

TIFF ColorChecker by Argyll in *.ti3 for colprof

2021 January 17 / Roger Breton

General purpose digital camera profile

- linear gamma matrix
- LUT profile (XYZ or Lab) or a shaper-matrix profile
- need **colprof.exe** to make the profile
- need **.ti3** data
- Argyll assumes raw processor outputs linear gamma
- Argyll assumes information in the raw file is proportional to light coming from the scene («scene linear»)

Procedure

1. Raw process the target chart shot raw file to produce a 16-bit linear gamma RAW color TIFF
2. Use the ArgyllCMS scanin utility to read the RGB color patch values in the target chart tiff

   Exporté de Quoi? Lumariver our UFraw?

   Scanin needs the TIFF and also the reference file.
   Scanin stores the RGB values and XYZ in **NikonD810_CC24.ti3**
3. Use the ArgyllCMS **colprof** utility to make a profile using the ti3 file saved by scanin

   Colprof uses the scanin RGB values in the ti3 file to do (something like) a least squares analysis to produce an input profile that makes all the target shot color patch RGB values match as closely as possible to the corresponding XYZ color patch values that were given in the target chart reference file

   scanin -v dsc_1545.tif ColorChecker.cht cc24.txt

4. To create profile:

   colprof -v -D"NikonD810 Sun by Argyll" -O"NikonD810 Sun by Argyll.icm" -qm -as dsc_1545

The **-D** parameter allows setting of the profile description tag

The **-q** parameter sets the level of effort and/or resolution in the resulting profile

The **-a** parameter allows choosing an **a**lternate profile type

-ax cLUT base table profile using a PCS of XYZ
-am create a matrix profile with linear (i.e. gamma = 1.0) curves

This may be useful in creating a profile for a device that is known to have a perfectly linear response, such as a camera in RAW mode

-as General shaper curve and matrix profiles (which are superior to gamma curve profiles)
-aS same as -as but create three independent shaper curves, one for each device channel
-ag Gamma curve and matrix profiles, three independent gamma curves, one for each device channel
-aG same as -ag except one common curve for all the device channels

The **-u** Input profiles will normally be created such that the white patch of the test chart will be mapped to perfect white when used with any of the non-absolute colorimetric intents

The **-O** parameter allows the output file name & extension to be specified independently of the final parameter basename. Note that the full filename must be specified, including the extension.

-ax cLUT base table profile using a PCS of XYZ

TIFF ColorChecker by Argyll in *.ti3 for colprof

2021 March 03 / Roger Breton

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   scanin -v dsc_1545.tif ColorChecker.cht cc24.txt

4. To create profile:

   colprof -v -D"NikonD810 Sun by Argyll cLUT" -O"NikonD810 Sun by Argyll cLUT.icm" -qm -ax dsc_1545

The **-D** parameter allows setting of the profile description tag

The **-q** parameter sets the level of effort and/or resolution in the resulting profile

The **-a** parameter allows choosing an alternate profile type

-ax cLUT base table profile using a PCS of XYZ
-am create a matrix profile with linear (i.e. gamma = 1.0) curves

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The **-O** parameter allows the output file name & extension to be specified independently of the final parameter basename. Note that the full filename must be specified, including the extension.

Scanin Log

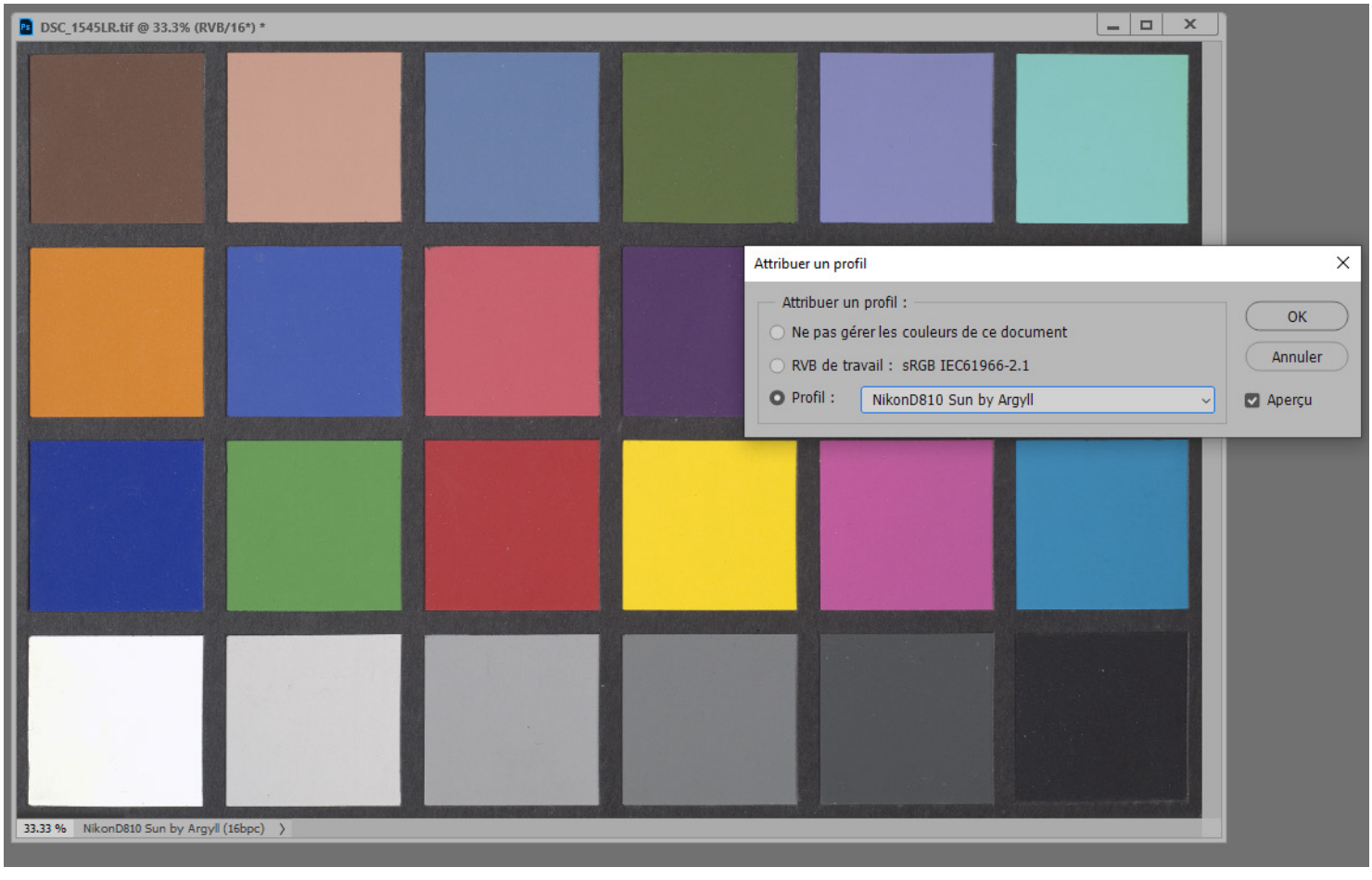
C:\Argyll\bin>scanin -v dsc_1545.tif ColorChecker.cht cc24.txt
TIFFFetchNormalTag: Warning, Incompatible type for "RichTIFFIPTC"; tag ignored.
Input file 'dsc_1545.tif': w=6075, h=3968, d = 3, bpp = 16
Data input file 'cc24.txt'
Data output file 'dsc_1545.ti3'
Chart reference file 'ColorChecker.cht'
About to allocate scanrd_ object
Verbosity = 2, flags = 0x40000
About to read input tiff file and discover groups
adivval = 0.528724
About to calculate edge lines
5226 useful edges out of 106062
About to calculate rotation
Mean angle = -0.522857
Standard deviation = 8.641553
Robust mean angle = -0.433458 from 4338 lines
About to calculate feature information
About to read reference feature information
Read of chart reference file succeeded
About to match features
Checking xx
Checking yy
Checking xy
Checking yx
Checking xix
Checking yiy
Checking xiy
Checking yix
Axis matches for each possible orientation:
  0: xx = 0.460713, yy = 0.521751, xx.sc = 0.051826, yy.sc = 0.052734
 90: xiy = 0.230759, yx = 0.439003, xiy.sc = 0.107029, yx.sc = 0.052210
180: xix = 0.447294, yiy = 0.533344, xix.sc = 0.051844, yiy.sc = 0.052524
270: xy = 0.241111, yix = 0.433210, xy.sc = 0.106673, yix.sc = 0.052021
r0 = 0.684056, r90 = 0.241936, r180 = 0.687064, r270 = 0.241778
There are 2 candidate rotations:
cc = 0.684056, irot = -0.433458, xoff = -150.605406, yoff = -194.763118, xscale = 19.295481, yscale = 18.963072
cc = 0.687064, irot = 179.566542, xoff = -6255.562550, yoff = -4116.688353, xscale = 19.288811, yscale = 19.038959
About to compute match transform for rotation -0.433458 deg.
About to setup value scanrdg boxes
About to read raster values
About to compute expected value correlation
About to compute match transform for rotation 179.566542 deg.
About to setup value scanrdg boxes
About to read raster values
About to compute expected value correlation
Expected value distance values are:
0, rot -0.433458: 1047.068849
1, rot 179.566542: 3157.768354
Chosen rotation -0.433458 deg. as best
About to compute final match transform
Improve match
About to setup value scanrdg boxes
About to read raster values
About to write diag file
Writing output values to file 'dsc_1545.ti3'

Colprof Log

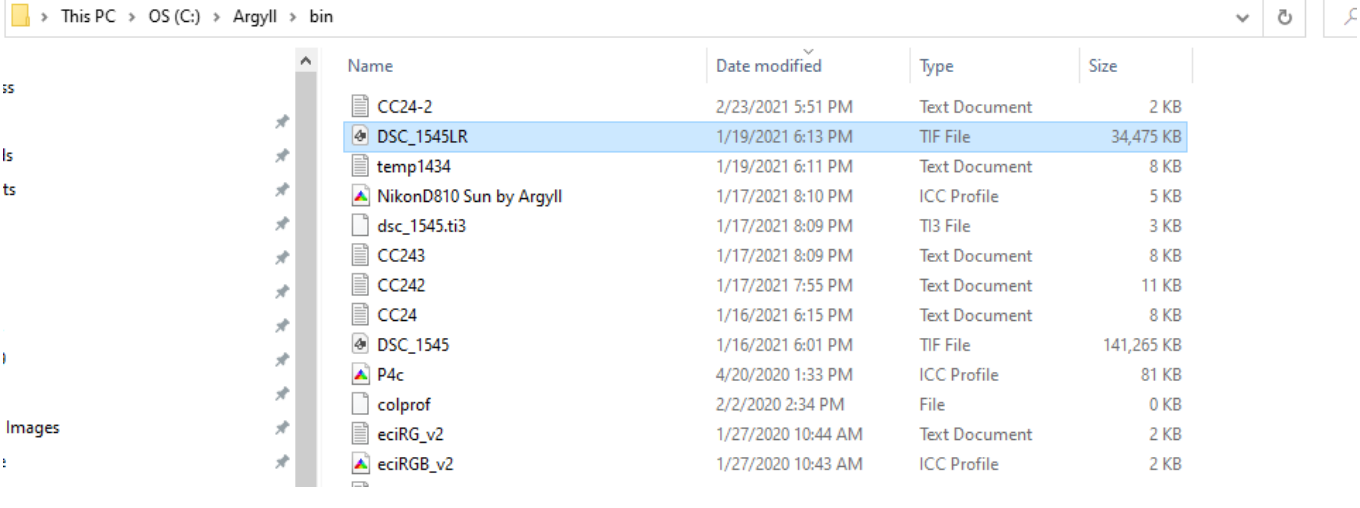
C:\Argyll\bin>colprof -v -D»NikonD810 Sun by Argyll» -O»NikonD810 Sun by Argyll.icm» -qm -as dsc_1545

No of test patches = **16**
Find white & black points
Picked white patch 4 with dev = 0.18087870 0.20489000 0.13518040
XYZ = 0.81818420 0.85411140 0.67296580, Lab = **94.059997 -1.029995 2.879998**
Picked black patch 3 with dev = 0.23837290 0.29040480 0.34916230
XYZ = 0.06782498 0.05427665 0.19847870, Lab = **27.920000 17.090000 -48.670000**
Creating matrix...
100%
Matrix = 0.387230 0.793388 -0.317801
0.399685 0.651185 -0.228821
-0.028572 0.472220 0.207565
Creating matrix and single gamma curve...
100%
Matrix = -0.055930 0.768277 -0.372364
-0.139250 0.686677 -0.223596
-0.833758 0.710353 0.387438
Gamma = 0.163631
Creating matrix and gamma curves...
100%
Matrix = -0.059776 0.604311 -0.463316
-0.043836 0.561566 -0.432860
-0.643018 0.814258 -0.189124
Gamma = 0.394075 0.146882 0.649930
Creating matrix and curves...
100%
Matrix = 0.131381 0.863685 -0.814143
0.160263 0.799193 -0.781420
-0.841086 1.461581 -0.555560
Input offset = -0.125466 0.283692 -0.142025
Output offset = 0.155284 0.126237 0.260538
0 gamma = 0.285881 0.605851 0.486324
1 harmonics = -0.516484 0.161571 2.774848
2 harmonics = -0.438740 -0.578395 -2.183812
3 harmonics = 0.890359 0.878071 2.797247
4 harmonics = 0.642960 -0.890190 0.509210
5 harmonics = 1.685657 0.654264 0.839827
6 harmonics = -1.764335 0.310476 1.764614
7 harmonics = 1.177761 -0.725609 1.751372
Doing White point fine tune:
Before fine tune, rel WP = XYZ 0.42028061 0.40219063 0.35918792, **Lab 69.625273 10.031245 -3.959742**
After fine tune, rel WP = XYZ 0.96420288 1.00000000 0.82490540, Lab 100.000000 -0.000000 0.000000
abs WP = XYZ 0.35664214 0.34342684 0.29293371, Lab 65.233668 8.769718 -1.570801
Black point XYZ = 0.12246554 0.11749242 0.13973445, Lab = 40.814772 6.443084 -12.704969
White point XYZ = 0.356642 0.343427 0.292934
Black point XYZ = 0.122466 0.117492 0.139734
Done gamma/shaper and matrix creation
Profile done

Avec 16 rangées seulement



Ouvrir TIFF DSC_1545LR.TIFF


This PC › OS (C:) › Argyll › bin
Name
Date modified
Type
Size
CC24-2 2/23/2021 5:51 PM Text Document 2 KB
DSC_1545LR 1/19/2021 6:13 PM TIF File 34,475 KB
temp1434 1/19/2021 6:11 PM Text Document 8 KB
NikonD810 Sun by Argyll 1/17/2021 8:10 PM ICC Profile 5 KB
dsc_1545.ti3 1/17/2021 8:09 PM TI3 File 3 KB
CC243 1/17/2021 8:09 PM Text Document 8 KB
CC242 1/17/2021 7:55 PM Text Document 11 KB
CC24 1/16/2021 6:15 PM Text Document 8 KB
DSC_1545 1/16/2021 6:01 PM TIF File 141,265 KB
P4c 4/20/2020 1:33 PM ICC Profile 81 KB
colprof 2/2/2020 2:34 PM File 0 KB
eciRG_v2 1/27/2020 10:44 AM Text Document 2 KB
eciRGB_v2 1/27/2020 10:43 AM ICC Profile 2 KB

LGOROWLENGTH 12
ORIGINATOR «ColorChecker24»
MANUFACTURER «X-Rite - http://www.xrite.com»
1/12/2021 # Time: 14:33
MYIRO ; Serial number XXXXX
NUMBER_OF_FIELDS 41
BEGIN_DATA_FORMAT
SampleID SAMPLE_NAME LAB_L LAB_A LAB_B NM_380 NM_390 NM_400 NM_410 NM_420 NM_430 NM_440 NM_450 NM_460 NM_470 NM_480 NM_490 NM_500 NM_510 NM_520 NM_530 NM_540 NM_550 NM_560 NM_570 NM_580 NM_590 NM_600 NM_610 NM_620 NM_630 NM_640 NM_650 NM_660 NM_670 NM_680 NM_690 NM
END_DATA_FORMAT
NUMBER_OF_SETS 24
BEGIN_DATA
1 A1 37.79999924 14.92000008 14.60999966 0.0562 0.0591 0.0596 0.0607 0.0601 0.0594 0.0589 0.0591 0.0593 0.059 0.0589 0.059 0.0611 0.0665 0.0717 0.0738 0.0751 0.0781 0.0855 0.0987 0.117 0.1336 0.1426 0.146 0.15
2 A2 65.77999878 18.45999908 17.94000053 0.1006 0.1507 0.2086 0.222 0.2236 0.2224 0.2223 0.2241 0.2258 0.2303 0.2424 0.2644 0.2888 0.3 0.2975 0.2937 0.2911 0.2883 0.2877 0.3025 0.367 0.4448 0.4808 0.4902 0.4995
3 A3 49.77999878 -3.900000095 -22.84000015 0.1056 0.1703 0.2667 0.2991 0.3102 0.3163 0.3252 0.3327 0.3283 0.3186 0.3072 0.2955 0.2782 0.2536 0.2295 0.2125 0.1966 0.1746 0.1523 0.142 0.1507 0.1571 0.1511 0.1429 0.1389
4 A4 42.34000015 -14.27999973 20.06999969 0.0491 0.0509 0.0558 0.0554 0.0566 0.0578 0.0603 0.0625 0.0637 0.0645 0.0657 0.068 0.0761 0.1021 0.1457 0.1769 0.1798 0.162 0.1382 0.1207 0.1113 0.1059 0.101 0.0972 0.0966
5 A5 55.31999969 8.090000153 -24.45000076 0.1116 0.1871 0.3142 0.3681 0.3962 0.4095 0.4195 0.4256 0.4201 0.407 0.3852 0.352 0.3137 0.282 0.2528 0.2274 0.2142 0.2088 0.2018 0.1951 0.1955 0.204 0.2182 0.2303 0.2355
6 A6 70.30000305 -32.93999863 0.150000006 0.1079 0.1712 0.2608 0.2936 0.3139 0.3297 0.3481 0.3746 0.4122 0.4558 0.4977 0.5352 0.5611 0.5693 0.5635 0.5462 0.5186 0.4803 0.4362 0.3907 0.3436 0.2948 0.2506 0.2205 0.2042
7 B1 62.02999878 34.04999924 58.74000168 0.0515 0.0516 0.0498 0.0515 0.0518 0.0504 0.0502 0.051 0.0519 0.0523 0.0527 0.0538 0.0613 0.0872 0.1271 0.1567 0.1728 0.1964 0.2463 0.3291 0.4334 0.5244 0.5698 0.5768 0.5721
8 B2 39.65999985 8.659999847 -43.18999863 0.0994 0.1614 0.2596 0.297 0.3267 0.3495 0.3703 0.3821 0.3695 0.3406 0.298 0.2481 0.2005 0.1631 0.1348 0.1147 0.1026 0.0947 0.0885 0.0843 0.0822 0.0815 0.0809 0.0804 0.08
9 B3 51.61000061 46.47000122 16.64999962 0.087 0.1118 0.132 0.1363 0.1351 0.1325 0.1308 0.1296 0.1262 0.1215 0.1158 0.11 0.1049 0.1007 0.0958 0.0934 0.0928 0.0943 0.098 0.1096 0.1633 0.2797 0.4104 0.4976 0.5365
10 B4 30.22999954 21.96999931 -20.01000023 0.0822 0.1181 0.1647 0.1803 0.1871 0.1779 0.1602 0.1374 0.1138 0.0949 0.081 0.0694 0.0608 0.0562 0.0532 0.0507 0.0497 0.0505 0.0521 0.0529 0.0526 0.053 0.058 0.0723 0.0956
11 B5 71.37999725 -23.85000038 57.41999817 0.0534 0.0569 0.059 0.0586 0.0593 0.0606 0.0641 0.0702 0.0818 0.0989 0.1255 0.1682 0.2441 0.3554 0.46 0.5172 0.5342 0.5294 0.5144 0.4923 0.4598 0.4141 0.3634 0.3255 0.3053
12 B6 71.44000244 19.02000046 66.68000031 0.063 0.0677 0.0657 0.0647 0.0644 0.0645 0.0658 0.0675 0.0692 0.0705 0.0724 0.0758 0.0889 0.1336 0.2208 0.311 0.3669 0.4071 0.4581 0.5177 0.5669 0.5941 0.6008 0.6013 0.6109
13 C1 27.92000008 17.09000015 -48.66999817 0.0623 0.0837 0.125 0.1461 0.1754 0.2065 0.2493 0.3023 0.3059 0.2656 0.2031 0.1421 0.0968 0.0709 0.0573 0.0497 0.0455 0.043 0.0413 0.0403 0.0397 0.0394 0.0393 0.0395 0.0398
14 C2 53.41999817 -39.61000061 30.64999962 0.0503 0.0528 0.0552 0.0558 0.0562 0.056 0.0576 0.0624 0.0722 0.0878 0.1136 0.1535 0.2182 0.2936 0.33 0.3211 0.3017 0.276 0.2406 0.2076 0.18 0.1518 0.1226 0.0999 0.0865
15 C3 42.02000046 56.24000168 28.29000092 0.049 0.0492 0.0485 0.0495 0.0488 0.0479 0.0474 0.0472 0.0465 0.0452 0.0435 0.042 0.0415 0.0424 0.0421 0.042 0.0423 0.0449 0.0489 0.0546 0.0686 0.1059 0.1868 0.3173 0.4665
16 C4 81.33000183 3.950000048 76.87000275 0.0555 0.0576 0.0553 0.056 0.0565 0.0573 0.0604 0.0659 0.0761 0.0904 0.1128 0.1473 0.2103 0.3166 0.4469 0.5467 0.6007 0.6317 0.6555 0.6753 0.6928 0.7057 0.7123 0.716 0.7193
17 C5 51.38999939 50.54999924 -12.81000042 0.1158 0.1832 0.2907 0.3276 0.3405 0.3358 0.3206 0.2955 0.2648 0.237 0.2084 0.1796 0.1577 0.1409 0.119 0.0998 0.0939 0.0983 0.1001 0.1054 0.1354 0.1991 0.2886 0.396 0.5107
18 C6 48.61999893 -27.72999954 -27.59000015 0.0869 0.1282 0.1827 0.2069 0.227 0.249 0.2788 0.318 0.3615 0.4041 0.4264 0.4259 0.4001 0.3564 0.3061 0.2551 0.2076 0.1641 0.1283 0.1043 0.0898 0.0806 0.0737 0.0692 0.0673
19 D1 94.05999756 -1.029999971 2.880000114 0.1098 0.2018 0.4346 0.606 0.7479 0.787 0.802 0.8181 0.8295 0.8375 0.8439 0.8497 0.8538 0.8566 0.8575 0.8577 0.8578 0.8562 0.8528 0.8496 0.8509 0.8533 0.8532 0.8532 0.8548
20 D2 79.44000244 -0.660000026 0.889999986 0.111 0.1955 0.3781 0.4768 0.5285 0.5396 0.5466 0.5532 0.5538 0.5529 0.5522 0.5531 0.5545 0.5563 0.5576 0.5585 0.5593 0.5591 0.559 0.5586 0.5586 0.5582 0.5567 0.555 0.5533
21 D3 64.59999847 0.129999995 0.209999993 0.1054 0.1717 0.2754 0.3132 0.3282 0.3312 0.3344 0.3378 0.3367 0.3346 0.333 0.3324 0.3327 0.3334 0.3337 0.3338 0.3339 0.334 0.3352 0.3371 0.3392 0.3401 0.3394 0.3378 0.3359
22 D4 50.58000183 -0.949999988 0.090000004 0.093 0.1302 0.1696 0.1788 0.1831 0.1853 0.1884 0.1912 0.1905 0.1892 0.1881 0.1878 0.1884 0.1895 0.1904 0.1911 0.1912 0.1909 0.1905 0.1901 0.1898 0.1891 0.1877 0.1862 0.1845
23 D5 35.22000122 -0.889999986 -0.469999999 0.0635 0.0747 0.0823 0.0844 0.0854 0.0866 0.0879 0.0887 0.0881 0.0874 0.0868 0.0864 0.0867 0.087 0.0873 0.0875 0.0874 0.0871 0.0868 0.0864 0.086 0.0855 0.0848 0.0841 0.0832
24 D6 21.44000053 0.140000001 -0.939999998 0.0353 0.0351 0.0373 0.0367 0.0363 0.0358 0.0352 0.0352 0.0351 0.0349 0.0345 0.0343 0.0341 0.034 0.0339 0.0337 0.0337 0.0335 0.0335 0.0334 0.0334 0.0333 0.0334 0.0333 0.0334
END_DATA

1ère rangée au complet
2e rangée au complet
3e rangée au complet
4e rangée au complet

Colprof Log

C:\Argyll\bin>colprof -v -D"NikonD810 Sun by Argyll" -O"NikonD810 Sun by Argyll.icm" -qm -as dsc_1545

No of test patches = 24
Find white & black points
Picked white patch 19 with dev = 0.61474740 0.61995770 0.59374070
XYZ = 0.81818420 0.85411140 0.67296580, **Lab = 94.059997 -1.029995 2.879998**
Picked black patch 24 with dev = 0.06569350 0.06593931 0.06525877
XYZ = 0.03250362 0.03362278 0.02896499, **Lab = 21.440002 0.139987 -0.939994**
Creating matrix...
100%
Matrix = 0.812593 0.375636 -0.247561
0.188279 1.354335 -0.594045
-0.048322 -0.181316 1.087328
Creating matrix and single gamma curve...
100%
Matrix = 1.375351 0.468084 0.108843
0.549794 1.773742 -0.335445
0.113546 -0.288550 1.978726
Gamma = 1.638076
Creating matrix and gamma curves...
100%
Matrix = 1.390687 0.471090 0.111372
0.557597 1.776575 -0.331841
0.113004 -0.290098 1.967767
Gamma = 1.652157 1.639000 1.630019
Creating matrix and curves...
100%
Matrix = 1.557083 0.495953 0.080219
0.616324 1.884987 -0.349716
0.092444 -0.315630 1.856321
Input offset = -0.025502 0.034841 0.011705
Output offset = 0.010943 0.002343 0.005195
0 gamma = 1.638627 1.725190 1.579940
1 harmonics = 0.301739 0.078588 -0.163133
2 harmonics = -0.150228 0.020485 0.585098
3 harmonics = 0.204813 0.211907 -0.070997
4 harmonics = -0.183206 -0.049656 -0.089493
5 harmonics = 0.023567 -0.179230 -0.024803
6 harmonics = 0.032559 0.051132 -0.015880
7 harmonics = -0.072549 0.107063 0.118868
Doing White point fine tune:
Before fine tune, rel WP = XYZ 0.94545055 0.98165887 0.80988814, Lab 99.286429 -0.186930 -0.009200
After fine tune, rel WP = XYZ 0.96420288 1.00000000 0.82490540, Lab 100.000000 0.000000 -0.000000
abs WP = XYZ 0.80226468 0.83844692 0.66071610, Lab 93.383004 -1.202173 2.853609
Black point XYZ = 0.02930276 0.03022375 0.02551961, Lab = 20.133282 0.286174 -0.485864
White point XYZ = 0.802265 0.838447 0.660716
Black point XYZ = 0.029303 0.030224 0.025520
Done gamma/shaper and matrix creation
Profile done
Profile check complete, **peak err = 8.409639, avg err = 2.301651**

Avec 24 rangées complète!

Résultat du Profil dans Photoshop en AbsCol
4 mars 2021

		Original			Argyll			
Se-	ID	LAB_L	LAB_A	LAB_B	LAB_L	LAB_A	LAB_B	ΔE76
1	A1	37.79999924	14.92000008	14.60999966	38	14	13	1.87
2	A2	62.02999878	34.04999924	58.74000168	62	33	55	3.88
3	A3	27.92000008	17.09000015	-48.66999817	28	16	-47	2.00
4	A4	94.05999756	-1.029999971	2.880000114	94	-1	3	0.14
5	B1	65.77999878	16.45999908	17.94000053	66	17	17	1.11
6	B2	39.65999985	8.659999847	-43.18999863	39	9	-42	1.40
7	B3	53.41999817	-39.61000061	30.64999962	56	-38	28	4.03
8	B4	79.44000244	-0.660000026	0.889999986	80	-1	1	0.66
9	C1	49.77999878	-3.900000095	-22.84000015	50	-3	-22	1.25
10	C2	51.61000061	46.47000122	16.64999962	53	48	17	2.10
11	C3	42.02000046	56.24000168	28.29000092	44	56	27	2.38
12	C4	64.59999847	0.129999995	0.209999993	65	0	1	0.89
13	D1	42.34000015	-14.27999973	20.06999969	43	-15	21	1.35
14	D2	30.22999954	21.96999931	-20.01000023	31	20	-17	3.68
15	D3	81.33000183	3.950000048	76.87000275	83	5	81	4.58
16	D4	50.58000183	-0.949999988	0.090000004	51	-1	0	0.43
17	E1	55.31999969	8.090000153	-24.45000076	54	7	-22	2.99
18	E2	71.37999725	-23.85000038	57.41999817	72	-25	57	1.37
19	E3	51.38999939	50.54999924	-12.81000042	51	53	-12	2.61
20	E4	35.22000122	-0.889999986	-0.469999999	35	-1	-1	0.58
21	F1	70.30000305	-32.93999863	0.150000006	69	-31	-1	2.60
22	F2	71.44000244	19.02000046	66.68000031	69	18	75	8.73
23	F3	48.61999893	-27.72999954	-27.59000015	49	-23	-29	4.95
24	F4	21.44000053	0.140000001	-0.939999998	21	0	0	1.05
							AVG	**2.36**

Peak Error

Essai Profile cLUT - 5 mars 2021

C:\Argyll\bin>colprof -v -D"NikonD810 Sun by Argyll cLUT" -O"NikonD810 Sun by Argyll cLUT.icm" -qm -ax dsc_1545
No of test patches = 24
Creating extrapolation black and white points:
Creating matrix...
 100%
Matrix = 0.831850 -0.008987 -0.028565
 0.276627 0.881748 -0.350813
 0.047171 -0.357811 1.011481
Creating matrix and single gamma curve...
 100%
Matrix = 1.169922 0.389013 0.084206
 0.468483 1.506421 -0.289864
 0.094370 -0.248111 1.616603
Gamma = 1.627927
Creating matrix and gamma curves...
 100%
Matrix = 1.180255 0.393981 0.083898
 0.474373 1.507629 -0.287551
 0.094397 -0.252282 1.606328
Gamma = 1.640635 1.627351 1.617497
Creating matrix and curves...
 100%
Matrix = 1.315695 0.393865 0.093541
 0.525237 1.640677 -0.333902
 0.094127 -0.327219 1.833969
Input offset = 0.007333 0.019473 0.023060
Output offset = 0.005439 0.003008 0.002019
0 gamma = 1.632350 1.652493 1.641633
1 harmonics = 0.330909 0.289752 0.335193
Added synthetic point @ 0.000000 0.000000 0.000000, val 0.009594 0.008763 0.005786, weight 0.190595
Added synthetic point @ 0.991596 1.000000 0.957712, val 1.815909 1.875162 1.529899, weight 0.500000
Added synthetic point @ 0.921556 0.929367 0.890065, val 1.652669 1.705664 1.388945, weight 0.500000
Added synthetic point @ 0.859850 0.867137 0.830468, val 1.499960 1.548165 1.256906, weight 0.500000
Added synthetic point @ 0.798144 0.804908 0.770870, val 1.338821 1.383084 1.117381, weight 0.500000
Added synthetic point @ 0.736438 0.742679 0.711273, val 1.169323 1.210669 0.970389, weight 0.348340
Added synthetic point @ 0.000000 0.000000 0.000000, val 0.009594 0.008763 0.005786, weight 0.190595
Added synthetic point @ 0.991596 1.000000 0.957712, val 1.815909 1.875162 1.529899, weight 0.500000
Added synthetic point @ 0.921556 0.929367 0.890065, val 1.652669 1.705664 1.388945, weight 0.500000
Added synthetic point @ 0.859850 0.867137 0.830468, val 1.499960 1.548165 1.256906, weight 0.500000
Added synthetic point @ 0.798144 0.804908 0.770870, val 1.338821 1.383084 1.117381, weight 0.500000
Added synthetic point @ 0.736438 0.742679 0.711273, val 1.169323 1.210669 0.970389, weight 0.348340
Estimating white point
Picked white patch 19 with dev = 0.61474740 0.61995770 0.59374070
 XYZ = 0.81818420 0.85411140 0.67296580, Lab = 94.059997 -1.029995 2.879998
Picked black patch 24 with dev = 0.06569350 0.06593931 0.06525877
 XYZ = 0.03250362 0.03362278 0.02896499, Lab = 21.440002 0.139987 -0.939994
Approximate White point XYZ = 0.81818420 0.85411140 0.67296580, Lab = 94.059997 -1.029995 2.879998
Creating optimised per channel curves
Initial White Point XYZ 0.818184 0.854111 0.672966, Lab 94.059997 -1.029995 2.879998
About to optimise temporary matrix
 100%
About to optimise a common ord 0 input curve and matrix
 100%
About to optimise a common input curve and matrix
 100%
About to optimise input curves and matrix
 100%
About to optimise output curves and matrix
 100%
About to optimise input curves and matrix again
 100%
About to optimise input, matrix and output together
 100%
About to create grid position input curves
Create final clut from scattered data
Doing White point fine tune:
Before fine tune, rel WP = XYZ 1.021598 1.051649 0.837101, Lab 101.963679 1.266350 2.404832
After fine tune, rel WP = XYZ 0.963124 0.999065 0.824886, Lab 99.963825 -0.030574 -0.060795
 abs WP = XYZ 0.86713484 0.89827854 0.68295146, Lab 95.925316 0.187840 5.176281
Creating fast inverse input lookups
White point XYZ = 0.86713484 0.89827854 0.68295146, Lab = 95.925316 0.187840 5.176281
Find black point
Black point XYZ = 0.02847879 0.03280308 0.02858762, Lab = 21.133241 -5.500426 -1.183227
Done A to B table creation
Setting up B to A table lookup
Creating B to A tables
Rev cache RAM = 1610 Mbytes

Looks like an XYZ space
Initializing nnrev arrays...
There is 1 rev cache instance with 1610 Mbytes limit
nnrev initialization done
Initializing nnrev arrays...
There are 2 rev cache instances with 802 Mbytes limit
nnrev initialization done
100%
Done B to A table
There is 1 rev cache instance with 1605 Mbytes limit
Profile check complete, peak err = 12.327745, avg err = 4.015216

-as General shaper curve and matrix profiles (which are superior to gamma curve profiles)

peak err = 8.409639, avg err = 2.301651

Conclusion: Le profil Shaper + Matrix est supérieur au cLUT?